

We Claim:

1. A method for characterizing an individual as possessing a factor contributing to an increased tendency for responding to an antigen with a Th1 or Th2 response; wherein said method comprises:
 - (a) determining the genotype of said individual with respect to the nucleotide present at position 883 of the TCF-1 gene, wherein said gene sequence is provided as SEQ ID NO: 1;
 - (b) classifying said patient based on the result obtained from step (a), wherein the presence of an A allele indicates a factor contributing to an increased tendency for responding to an antigen with a Th1 response, and the presence of a C allele indicates a factor contributing to an increased tendency for responding to an antigen with a Th2 response.
2. A method for characterizing an individual as possessing a factor contributing to an increased risk of a Th1-mediated disease or an increased risk of a Th2-mediated disease, wherein said method comprises:
 - (a) determining the genotype of said individual with respect to the nucleotide present at position 883 of the TCF-1 gene, wherein said gene sequence is provided as SEQ ID NO: 1;
 - (b) classifying said patient based on the result obtained from step (a), wherein the presence of an A allele indicates a factor contributing to an increased risk of a Th1-mediated disease, and the presence of a C allele indicates a factor contributing to an increased risk of a Th2-mediated disease.
3. A method for characterizing an individual as possessing a factor contributing to an increased risk of a Th1-mediated disease, wherein said method comprises:
 - (a) determining the genotype of said individual with respect to the nucleotide present at position 883 of the TCF-1 gene, wherein said gene sequence is provided as SEQ ID NO: 1;

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(b) classifying said patient based on the result obtained from step (a), wherein the presence of an A allele indicates a factor contributing to an increased risk of a Th1-mediated disease.

5 4. A method of claim 3, wherein said Th1-mediated disease is type 1 diabetes or multiple sclerosis.

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10 5. A method for characterizing an individual as possessing a factor contributing to an increased risk of a Th2-mediated disease, wherein said method comprises:

(a) determining the genotype of said individual with respect to the nucleotide present at position 883 of the TCF-1 gene, wherein said gene sequence is provided as SEQ ID NO: 1;

15 (b) classifying said patient based on the result obtained from step (a), wherein the presence of a C allele indicates a factor contributing to an increased risk of a Th2-mediated disease.

6. A method of claim 5, wherein said Th2-mediated disease is allergic asthma or atopy.

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7. A method for determining the genotype of a sample with respect to the nucleotide present in the TCF-1 gene at position 883, comprising:

25 (a) contacting nucleic acid from said sample with an oligonucleotide probe exactly complementary to an allele that is an A allele or a C allele in a region encompassing position 883 under conditions such that hybridization occurs if and only if said allele is present; and

(b) detecting if hybridization occurs, which indicates the presence of said allele.

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8. A method of Claim 7, wherein a segment of region of said nucleic acid encompassing said region is amplified prior to, or concurrent with step (a).

9. A method of Claim 8, wherein said probe is selected from the group consisting of KW196 (SEQ ID NO: 8) or KW118 (SEQ ID NO: 9).

Sub A7 10. A method for determining the genotype of a sample with respect to the nucleotide present in the TCF-1 gene at position 883, comprising:

- (a) contacting nucleic acid from said sample with a set of oligonucleotide primers comprising an allele-specific primer specific for an allele that is an A allele or a C allele under amplification conditions such that amplification occurs using said allele-specific primer if and only if said allele is present; and
- 10 (b) detecting if amplification occurs, which indicates the presence of said allele.

11. A method of Claim 10, wherein said allele specific primer is GZ351B
15 (SEQ ID NO: 4) or GZ374B (SEQ ID NO: 5).

Sub A8 12. An isolated oligonucleotide, wherein said oligonucleotide is exactly or substantially complementary to either strand of SEQ ID NO: 1 in a region which encompasses the polymorphic site at nucleotide position 883, and wherein said
20 oligonucleotide is exactly complementary to SEQ ID NO: 1 at said nucleotide position 883.

13. An isolated oligonucleotide of Claim 12, wherein said region is about 10 to about 35 nucleotides in length.

25 Sub A9 14. An isolated oligonucleotide of Claim 13 selected from the group consisting of GZ351B (SEQ ID NO: 4), GZ374B (SEQ ID NO: 5), KW196 (SEQ ID NO: 8), KW118 (SEQ ID NO: 9), and the exact complements thereof.

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15. A kit for determining the genotype of an individual TCF-1 genotype with respect to the nucleotide present in the TCF-1 gene at position 883 locus comprising an oligonucleotide of Claim 12.

5 16. A kit for determining the genotype of an individual TCF-1 genotype with respect to the nucleotide present in the TCF-1 gene at position 883 locus comprising an oligonucleotide of Claim 13.

10 17. A kit for determining the genotype of an individual TCF-1 genotype with respect to the nucleotide present in the TCF-1 gene at position 883 locus comprising an oligonucleotide of Claim 14.

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